

In the United States Court of Federal Claims

No. 08-237 C

Filed December 29, 2014*

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ALABAMA POWER COMPANY,)
GEORGIA POWER COMPANY,) Spent Nuclear Fuel; Standard Contract
and SOUTHERN NUCLEAR) Requirements; Breach of Contract
OPERATING COMPANY, INC.) Damages; Proof of Causation; Loading
Plaintiffs,) Costs; Equipment and Plant
v.) Modifications Costs; and Nuclear
) Regulatory Commission Fees.
THE UNITED STATES,)
Defendant.)

Eric B. Langley, Balch & Bingham, LLP, Birmingham, AL, for plaintiffs. *M. Stanford Blanton*, *K.C. Hairston*, *Jason B. Tompkins*, and *Adam K. Israel*, of counsel.

James P. Connor, Commercial Litigation Branch, Civil Division, United States Department of Justice, Washington, D.C., with whom appeared *Stuart F. Delery*, Acting Attorney General, *Robert E. Kirshman, Jr.*, Director, *Marian E. Sullivan*, Assistant Director, for defendant. *Eric P. Bruskin*, *Alexis J. Echols*, and *Shari A. Rose*, Trial Attorneys. *Jane K. Taylor*, Office of the General Counsel, United States Department of Energy, Washington, D.C., of counsel.

OPINION

Merow, Senior Judge

Plaintiffs Alabama Power Company (“Alabama Power”), Georgia Power Company (“Georgia Power”), and Southern Nuclear Operating Company, Inc. (“Southern”) (collectively “plaintiffs”)¹, initially filed suit in this court in 1998, alleging the government’s breach of its contractual obligations related to the removal of spent nuclear fuel (“SNF”) from plaintiffs’ facilities. *See S. Nuclear Operating Co., et al. v. United States*, No. 98-cv-614 (Fed. Cl. filed July 29, 1998).

¹Alabama Power and Georgia Power own and operate nuclear power plants, and Southern is the holding company for those entities. *See* Tr. at 237:23-238:11 (Bunt).

In that first round of litigation, the court granted summary judgment on liability in favor of plaintiffs. *See id.* at Doc. 234.

The parties went to trial on the issue of damages, and after detailed consideration of plaintiffs' claims, the court concluded that:

The contracts have been breached by a series of delays that now continue into 2017 and perhaps 2018. As a result, plaintiffs have built dry storage and reracked, . . . mitigating efforts that would not have been necessary if DOE had commenced performance at any reasonable pickup rate.

S. Nuclear Operating Co., et al. v. United States, 77 Fed. Cl. 396, 459 (2007). On appeal, the Federal Circuit affirmed the court's ruling "that the government had partially breached the Standard Contract by failing to begin accepting SNF in January 1998," and noted "[t]here is no issue on appeal as to liability; liability in these SNF cases has been established." *S. Nuclear Operating Co., et al. v. United States*, 637 F.3d 1297, 1299 (Fed. Cir. 2011) (affirming in part and reversing in part the court's damages award). Following the Circuit's remand, the parties settled the remaining damages issues, and stipulated to a judgment, which the court entered on April 5, 2012. *See S. Nuclear*, No. 98-cv-614, Doc. 423.

The plaintiffs filed a second complaint on April 3, 2008, seeking to recover damages accrued from January 1, 2005 through December 31, 2010. *See* Doc. 1 at 3; Tr. at 10:10. The alleged damages amount to approximately \$77.4 million. *See* Doc. 169. Because the government's partial breach has already been established, plaintiffs had the task of proving the amount of their alleged damages and establishing that those damages flowed from the government's breach.

Trial was held in this matter from November 18 through November 21, 2013. Following the submission of post-trial briefs, closing argument was heard on June 24, 2014.

FINDINGS OF FACT

At the direction of the court, the parties have cooperated in an extensive audit process, through which they evaluated plaintiffs' damages claim. *See* Doc. 32. That process helped to focus the issues before the court at trial, which are as follows: (1) whether plaintiffs established causation for the damages not specifically contested at trial; (2) whether plaintiffs are entitled to recover for fuel

characterization and loading costs that may be incurred again prior to the government's performance under the Standard Contract; (3) whether plaintiffs are entitled to recover for certain equipment purchases and plant modifications at Plant Hatch, Plant Farley and Plant Vogtle; and (4) whether plaintiffs are entitled to recover a portion of the fees paid to the Nuclear Regulatory Commission ("NRC") covering the time periods when plaintiffs did not have dry storage on site. The following facts are relevant to deciding these issues.

I. THE STANDARD CONTRACTS

The government entered into nearly identical Standard Contracts with each of the utilities in this case, under which the government, through the Department of Energy ("DOE"), agreed to dispose of the utilities' SNF.² The provisions at issue here define the plaintiffs' responsibilities to prepare the fuel for transportation, and the government's responsibilities to provide certain equipment and information to facilitate transportation of the casks.

The plaintiffs are obligated, in relevant part, to: "arrange for, and provide, all preparation, packaging, required inspections, and loading activities necessary for the transportation of SNF and/or HLW to the DOE facility." Plaintiffs' Ex. 1 at IV.A.2.

The government's obligations, in relevant part are as follows:

DOE shall arrange for, and provide, a cask(s) and all necessary transportation of the SNF and/or HLW from the Purchaser's site to the DOE facility. Such cask(s) shall be furnished sufficiently in advance to accommodate scheduled deliveries. Such cask(s) shall be suitable for use at the Purchaser's site, meet applicable regulatory requirements, and be accompanied by pertinent information including, but not limited to, the following:

² In *S. Nuclear*, 77 Fed. Cl. at 396, the court wrote extensively on the contracts between the utilities and the government, and on the historical context in which the contracts came about. In the interest of focusing on the new issues before the court, the discussion is not repeated in this opinion. As the parties have stipulated, the terms of each contract are identical, "other than the name and certain administrative content of the contracting utility." Doc. 136 at 1. To simplify citations, when the court is referring to contract term that is common to all three plants, it will refer to Plaintiffs' Ex. 1.

- (a) written procedures for cask handling and loading, including specifications on Purchaser-furnished cannisters [sic] for containment of failed fuel;
- (b) training for Purchaser’s personnel in cask handling and loading, as may be necessary;
- (c) technical information, special tools, equipment, lifting trunnions, spare parts and consumables needed to use and perform incidental maintenance on the cask(s), and
- (d) sufficient documentation on the equipment supplied by DOE.

Plaintiffs’ Ex. 1 at IV.B.2.

II. PLANT HATCH

On June 10, 1983, the government entered into a contract with Georgia Power with regard to the disposal of fuel from Plant Edwin I. Hatch. Plaintiffs’ Exs. 2 and 3.³ In this second phase of litigation, Georgia Power seeks damages in an amount of \$36,948,000 to cover costs it alleges were incurred, due to the government’s partial breach of the Standard Contract, between January 1, 2005, and December 31, 2010. *See* Doc. 103 at 14.

During that time, Georgia Power made whole or partial payments for twenty-eight casks; characterized, loaded, and stored twenty casks; expanded Plant Hatch’s ISFSI; purchased several pieces of equipment for use in loading the casks; and made a number of building modifications to accommodate that new equipment. *See id.* at 14-15.

The broad categories of Georgia Power’s alleged damages at Plant Hatch are as follows:

Dry Storage Operations and Maintenance:	\$3,865,000
Dry Storage Equipment:	\$3,291,000
Dry Casks:	\$29,132,000

³ Two contracts were executed for Plant Hatch—one “for the first four reloads of fuel for the Unit 1 reactor at Plant Hatch,” and the other covering the balance of the SNF from Units 1 and 2. *See* Doc. 103 at 11.

ISFSI Construction:	\$660,000
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Total:	\$36,948,000

See id. at 14.

A vast majority of these expenses were not specifically contested at trial. The government, however, claims that Georgia Power should not recover for fuel characterization and loading costs, and that it is not responsible for its expenditures on certain building modifications. The parties stipulated that the fuel characterization costs across all plants for this claims period amount to \$964,793. *See* Doc. 136 at 7. The parties further stipulated that the cask loading costs across all plants for this claims period amount to \$6,946,436. *See id.*

Cask loading takes place underwater, in the spent fuel pool. *See* Tr. at 161:15-23 (Ripple). After the fuel is loaded, the inside of the cask must be dried before it is sealed. *See* Doc. 149 at 41 (citing Tr. at 161:15-162:20) (Ripple), Tr. at 256-259 (Bunt)). There are several different types of drying equipment for this purpose. Before the claims period at issue, Georgia Power had a vacuum drying system at Plant Hatch, but replaced it with a forced helium dehydrator, which was required for use with the specific Holtec casks it was loading. *See* Tr. at 245:10-19; 256-259 (Bunt). Georgia Power also installed a supplemental cooling system that worked to keep the forced helium dehydrator from overheating. *See* Tr. at 256:25-257:6 (Bunt). In addition to purchasing and installing the equipment itself, Georgia Power installed new power lines to supply the forced helium dehydrator and supplemental cooling system. Tr. at 259:15-21 (Bunt).

Operating the forced helium dehydrator and the supplemental cooling system on the loading room floor resulted in increased temperatures in an area of the plant that was already adversely affected by heat. *See* Tr. at 259:24-25, 261:14-16 (Bunt). Prior to installation of the forced helium dehydrator and the supplemental cooling system, Georgia Power controlled temperatures on the loading room floor through use of “stay times” and “cooling vests” worn by employees. *See* Tr. at 287:5-17 (Bunt). These methods were ineffective to counteract the increased heat from the new equipment, so Georgia Power installed a new HVAC system. *See* Tr. at 260:21-23 (Bunt). The HVAC system was used to offset the heat from the forced helium dehydrator and the supplemental cooling system, not to correct the preexisting concerns about high temperatures. Tr. at 260:21-261:4 (Bunt).

The new power lines and the HVAC system together cost \$1,187,476. *See* Doc. 169 at 6 (citing Defendant’s Ex. 89 at 8).

III. PLANT VOGTLE

On June 10, 1983, the government entered into a contract with Georgia Power with regard to the disposal of fuel from Plant Alvin W. Vogtle. Plaintiffs’ Ex. 4. In this second phase of litigation, Georgia Power seeks damages in an amount of \$3,527,000 to cover costs it alleges were incurred, due to the government’s partial breach of the Standard Contract, between January 1, 2005, and December 31, 2010. *See* Doc. 103 at 16.

During that time, Georgia Power incurred the costs of an engineering study, construction costs for a small ISFSI and a new sally port, and crane modifications. *See* Doc. 103 at 16.

The broad categories of Georgia Power’s alleged damages at Plant Vogtle are as follows:

Dry Storage Operations and Maintenance:	\$229,000
Dry Storage Modifications and Equipment:	\$1,637,000
ISFSI Construction:	\$1,661,000
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Total:	\$3,527,000

See id. at 14.

The government challenges the expenditures for the study, the sally port, and the crane modifications.

Plant Vogtle includes four reactor units. Units 1 and 2 are operational, *see* Tr. at 267:16-17 (Bunt), and the storage of SNF from these two units is the subject of this lawsuit. Units 3 and 4 are in the construction phase, *see* Tr. at 267:15-16 (Bunt), and any future SNF storage needed for these units is unrelated to the breach at issue. Here, Georgia Power seeks to recover for costs incurred in ISFSI engineering and design costs to support storage for fuel from Units 1 and 2.

Georgia Power engaged Bechtel Corporation to do a comprehensive design and engineering study that “involved looking at the plant site, identifying where an

ISFSI could go, what would be entailed in all the activities inside the building, outside the building, to go through the full functionality of going to an ISFSI . . .” Tr. at 265:16-20 (Bunt). In the work order, the scope of the project was defined as follows:

Develop an overall plan for the design and implementation of the [Plant Vogtle] ISFSI. The ISFSI will meet the fuel storage life cycle requirements for Units 1 and 2, with consideration for Units 3 and 4. The ISFSI will be designed to accommodate 250 casks for Units 1 and 2, with consideration for 50 additional casks to support an 80 year plant life and consideration for an additional 200 casks for Units 3 and 4.

Defendant’s Ex. 69 at KRGSNCIIB-006053. Although the study considered the existence of Units 3 and 4, it only supported fuel storage from Units 1 and 2. *See* Tr. at 266:1-267:2; Tr. at 267:3-11 (Bunt). These services cost Georgia Power \$1,489,258, *see* Doc. 136 at 7, and were paid for from funds allocated to Units 1 and 2, *see* Tr. at 267:25-268:4 (Bunt); Tr. at 793:20-21 (Cash).

In order to transport the loaded Holtec casks to the ISFSI, Georgia Power constructed a new sally port. The existing sally port was insufficient because it led to a road that could not bear the weight of the loaded Holtec casks, and was too narrow for the vehicles used to transport them to the ISFSI. *See* Tr. at 795:16-25 (Cash). The existing sally port, however, would have been sufficient to accommodate small casks used in over-the-road transport. *See* Tr. at 796:10-13 (Cash). The sally port construction cost \$486,595. *See* Doc. 136 at 7.

Georgia Power also made modifications to the crane at Plant Vogtle in order to safely handle the loaded Holtec casks, which weigh approximately 125 tons. *See* Tr. at 273:13 (Bunt). The crane at Plant Vogtle required modification because it had been derated, meaning its permissible load was reduced, for a number of reasons, including “reliability” problems. Tr. at 274:12 (Bunt). No definitive weight limit was presented at trial, but the plant’s Severe Accident Management Manager testified that the weight limit was something less than 55 tons. *See* Tr. at 277:12-15 (Bunt). Mr. Cash, who served as project manager for Plant Vogtle’s Major Project Groups until shortly before trial, later testified that the crane was unable to lift a 25-ton cask safely. *See* Tr. at 771:13-16. The crane modifications cost \$289,330. *See* Doc. 136 at 7.

IV. PLANT FARLEY

On June 13, 1983, the government entered into a contract with Alabama Power with regard to the disposal of fuel from Plant Joseph M. Farley. Plaintiffs' Ex. 1. In this second phase of litigation, Alabama Power seeks damages in an amount of \$32,612,000 to cover costs they allege were incurred, due to the government's partial breach of the Standard Contract, between January 1, 2005, and December 31, 2010. *See* Doc. 103 at 15.

During that time, Alabama Power made whole or partial payments for twenty-four casks; characterized, loaded, and stored twelve casks; and expanded Plant Farley's ISFSI, adding two pads. *See id.* In addition, Alabama Power purchased equipment and made plant modifications, including:

installing a permanent work platform in Unit 2's cask wash pit area, installing a lift yoke support arm on the wall of Unit 2's spent fuel pool room, replacing the covers to Unit 2's cask loading and cask wash pits, designing and fabricating a lift yoke extension and storage for that extension within Unit 2's spent fuel pool room, constructing a storage building for the dry cask crawler and other equipment necessary for dry cask storage, and completing other building improvements to facilitate dry cask storage operations.

Id.

The broad categories of Alabama Power's alleged damages at Plant Farley are as follows:

Dry Storage Operations and Maintenance:	\$5,660,000
Dry Storage Modifications and Equipment:	\$3,357,000
Dry Casks:	\$20,537,000
ISFSI Construction:	\$3,058,000
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Total:	\$32,612,000

See id. at 14.

As with Plant Hatch's damages, a majority of these expenses were not specifically contested at trial, but the government claims it is not responsible for

fuel characterization and loading costs, certain building modifications, or site-specific loading procedures.

At Plant Farley, like Georgia Power at Plant Hatch, Alabama Power modified the power supplies in both Reactor Unit 1 and Reactor Unit 2 to accommodate the power requirements of the forced helium dehydrator and supplemental cooling system needed to load the Holtec casks. *See* Tr. at 159:10-24 (Ripple) (explaining that Plant Farley had very limited space and so the helium dehydrator and supplemental cooling systems were located outside the building and penetrations through the walls were necessary to connect the equipment on the loading room floor); Tr. at 242:14-18 (Bunt) (testifying that the penetrations would not have been necessary if plaintiffs continued to use the vacuum drying system); Tr. at 244:23-245:19 (Bunt) (explaining that Plant Farley had pre-existing electrical hook-ups and penetrations that supported the vacuum drying system, but that they needed to be modified to support the helium dehydration system, and noting that the penetrations for Units 1 and 2 were of the same type). Plaintiffs are unable to itemize the costs of the power supply modifications. *See* Doc. 169 at 5.

In order to accommodate the Holtec casks, Alabama Power installed new loading pit and wash pit covers. The covers create a work space over the spent fuel pool, where workers load the canisters. *See* Tr. at 158:2-4 (Ripple). The Holtec dehydration equipment required considerable space, and new covers were necessary to leave enough room for activities associated with closing the casks. *See* Tr. at 158:5-12 (Ripple). The pit covers cost \$69,364. *See* Doc. 169 at 4 (explaining Plaintiffs' Ex. 11 at 961-63).

Alabama Power also installed a work platform at Plant Farley Unit 2, "to provide access to the cask while [they are] doing welding and decontamination" while loading. *See* Doc. 149 at 46 (citing Tr. at 156:23-25 (Ripple)). Alabama Power had previously used temporary scaffolding to serve the same purpose. *See* Tr. at 748:13-17 (Zabransky) (testifying that casks can be loaded with scaffolding instead of work platforms); Tr. at 809:5-16 (McCallum) (testifying that plaintiffs have previously used scaffolding to access the tops of casks); Tr. at 849:4-23 (Maret) (testifying that plaintiffs could have chosen to use scaffolding, but that the work platform was a better solution); Tr. at 903:14-22 (Maret) (testifying that the work platform "makes sense" but is "not necessary to load a cask"). But the work platform increased efficiency and reduced workers' radiation exposure. *See* Tr. at 849:15-17 (Maret) (testifying that the work platform allowed the plaintiffs to "facilitate the work and make it more efficient, make it safer and to reduce the

potential for radiation exposure. . .”). The work platform cost \$46,030. *See* Doc. 169 at 4 (explaining Plaintiffs’ Ex. 11 at 961-63).

Under the terms of the contract, the government would have brought some equipment with it at the time of performance. *See* Plaintiffs’ Ex. 2 and 3 at IV.B.2(c) (stating that the government would provide “technical information, special tools, equipment, lifting trunnions, spare parts and consumables needed to use and perform incidental maintenance on the cask(s)”). This equipment includes a lift yoke—which is a piece of equipment “designed to attach the crane hook to the transfer cask for lifting and lowering [the cask] components into and out of the cask loading pit, which is part of the spent fuel pool.” Doc. 149 at 49-50; *see* Tr. at 901:10-11 (Maret). Because the lift yoke is submerged in the pool during this process, it is radioactively contaminated, and must either be repeatedly decontaminated, or stored within the spent fuel building, which is radiologically controlled. *See* Tr. at 854-856 (Maret). Alabama Power chose the latter option, and installed a support arm in the Farley Unit 2 building. *See* Tr. at 168:11-12 (Ripple). The lift yoke support arm cost \$51,135. *See* Doc. 169 at 5 (explaining Plaintiffs’ Ex. 11 at 957-59).

As additional measures to avoid repeated decontamination activities, Alabama Power purchased a lift yoke extension and installed storage stands in Farley Units 1 and 2. *See* Tr. at 152:2-153:3 (Ripple). The crane at Plant Farley is located outside the spent fuel buildings. *See* Tr. at 151:25-152:2 (Ripple). In order to use the crane to load casks, the roof on the building is removed, and the crane, with the attached lift yoke, can then access the pool. *See* Tr. at 152:2-152:16 (Ripple). Alabama Power uses the lift yoke extension to avoid contaminating the crane. *See* Tr. at 152:22-153:3 (Ripple). The stands are located within the buildings, like the lift yoke support arm, to allow the extension to be stored with the radiologically controlled area. *See* Tr. at 862:7-17 (Maret). The lift yoke extension cost \$97,812. *See* Defendant’s Ex. 90 at 2. Plaintiffs are unable to itemize the costs of the storage stands. *See* Doc. 169 at 5.

Finally, at Plant Farley, Alabama Power was required to develop site-specific loading procedures for loading the Holtec casks. *See* Tr. at 170:25-171:3 (Ripple). Alabama Power seeks to recover the costs of doing so under the Standard Contract language that states that the government will provide “written procedures for cask handling and loading, including specifications on Purchaser-furnished cannisters [sic] for containment of failed fuel.” Plaintiffs’ Ex. 1 at IV.B.2(a). The loading procedures development cost \$303,030. *See* Doc. 136 at 7.

V. NUCLEAR REGULATORY COMMISSION FEES

The NRC “is required to recover nearly all of its costs of regulating the nuclear power industry from the licensees that it supervises,” pursuant to the Omnibus Budget Reconciliation Act, known as OBRA-90. *Consol. Edison Co. of New York, Inc. v. Entergy Nuclear Indian Point 2, LLC*, 676 F.3d 1331, 1336 (Fed. Cir. 2012) (citing 42 U.S.C. § 2214). It does so by levying a variety of annual fees—some are site-specific, and others are generic and industry-wide. *See id.* at 1337. “The annual fees must have, to the maximum extent practicable, a reasonable relationship to the cost of providing regulatory services in order to meet the requirements of OBRA-90.” Revision of Fee Schedules; 100% Fee Recovery, FY 1999, 64 Fed. Reg. at 31457. Plaintiffs seek to recover approximately \$4,331,000 in dry storage fees that they claim the NRC improperly collected. *See* Plaintiffs’ Ex. 5 at 2; Doc. 169 at 2.

Prior to 1999, the NRC only charged dry storage fees to facilities with ISFSIs. In 1999, that rule was changed, and the NRC began collecting dry storage fees as part of a generic fee charged to all facilities with fuel on site. Doc. 149 at 29-31 (summarizing the history of the rule development). Plaintiffs argue that this rule change, which caused them to incur dry storage fees they would not have been required to pay under the old rule, was a direct result of the government’s breach.

CONCLUSIONS OF LAW

Under traditional contract law principles, which govern in spent nuclear fuel disputes, the remedy for a breach “is damages sufficient to place the injured party in as good a position as it would have been had the breaching party fully performed.” *Indiana Michigan Power Co. v. United States*, 422 F.3d 1369, 1373 (Fed. Cir. 2005). Specifically, “[d]amages for a breach of contract are recoverable where: (1) the damages were reasonably foreseeable by the breaching party at the time of contracting; (2) the breach is a substantial causal factor in the damages; and (3) the damages are shown with reasonable certainty.” *Id.* (citing *Energy Capital Corp. v. United States*, 302 F.3d 1314, 1320 (Fed. Cir. 2002)).

To establish that damages were reasonably foreseeable, “a plaintiff must show that the type of damages are foreseeable as well as the fact of damage.” *See Vermont Yankee Nuclear Power Corp. v. Entergy Nuclear Vermont Yankee*, 683 F.3d 1330, 1344 (Fed. Cir. 2012). As the Federal Circuit has explained:

Although this does not require “actual foresight” that the breach will cause a “specific injury or a particular amount in money[,] . . . the injury actually suffered [still] must be *one of a kind that the defendant had reason to foresee* and of an amount that is not beyond the bounds of reasonable prediction.”

Id. (citing Joseph M. Perillo, 11 *Corbin on Contracts* § 56.7 at 108 (rev. ed. 2005) (emphasis added)).

Plaintiffs must then show that the government’s breach was a “substantial causal factor” in the damages they seek to recover. *Indiana Michigan*, 422 F.3d at 1373. Although the but-for test is also an acceptable causation standard, trial courts have discretion to decide which standard should be applied in a particular case. *Yankee Atomic Elec. Co. v. United States*, 536 F.3d 1268, 1272 (Fed. Cir. 2008) (citing *Citizens Fed. Bank v. United States*, 474 F.3d 1314, 1318 (Fed. Cir. 2007)). In the first phase of litigation, the court opted to apply the substantial factor test, *see S. Nuclear Operating Co. v. United States*, 77 Fed. Cl. 396, 405 (2007), and will do so in this second phase as well.

As part of their causation argument, plaintiffs must present a “comparison between the breach and non-breach worlds.” *Yankee Atomic*, 536 F.3d at 1273. The plaintiff bears the burden of proving “the extent to which his incurred costs differ from the costs he would have incurred in the non-breach world.” *Energy Nw. v. United States*, 641 F.3d 1300, 1306 (Fed. Cir. 2011).

And, although damages must be “shown with reasonable certainty,” they need not be “ascertainable with absolute exactness or mathematical precision,” but “recovery for speculative damages is precluded.” *Indiana Michigan*, 422 F.3d at 1373 (citations omitted). Enough evidence to allow the court to make “a fair and reasonable approximation” is required. *Bluebonnet Sav. Bank v. United States*, 266 F.3d 1348, 1355 (Fed. Cir. 2001) (citations omitted).

In addition to these basic principles, a non-breaching party is obligated to mitigate its damages when “a reasonable person, in light of the known facts and circumstances, would have taken steps to avoid damage.” *Indiana Michigan*, 422 F.3d at 1375. The Circuit has explicitly stated that, in order to recover mitigation damages, the mitigating party must “prove foreseeability, causation, and reasonableness.” *Id.* at 1376. But when mitigation efforts are “reasonable, foreseeable, and caused by the Government’s partial breach, their ultimate success and usage is irrelevant.” *Yankee Atomic*, 536 F.3d at 1276.

After the plaintiff makes its case for mitigation damages, however, “the defendant may eliminate or reduce the alleged damages by showing either that the ‘[p]laintiffs did not undertake reasonable mitigation efforts, or that the efforts they did undertake were unreasonable.’” *Entergy Nuclear Vermont Yankee, LLC v. United States*, 95 Fed. Cl. 160, 184 (2010) (citing *Carolina Power & Light Co. v. United States*, 82 Fed. Cl. 23, 44 (2008), *rev’d* on other grounds, *Vermont Yankee*, 683 F.3d 1330).

In the second phase of this litigation, plaintiffs have alleged entitlement to damages in the amount of \$77.4 million. *See* Doc. 149 at 8. The court will analyze plaintiffs’ claims in four broad categories: (1) the alleged damages that the government did not specifically contest at trial; (2) damages for loading costs and fuel recharacterization; (3) damages for plant modifications and equipment; and (4) NRC fees.

I. Alleged Damages Not Contested At Trial

At the outset of this case, the court issued an order directing the parties to cooperate in an audit process meant to streamline the evidentiary proceedings with regard to the “accuracy or admissibility” of evidence supporting plaintiffs’ damages claim. *See* Doc. 32 at 2. Through this process, the parties identified, and ultimately stipulated to, \$59,431,458 in uncontested costs. *See* Doc. 136. This figure includes \$32,048,515 for expenses at Plant Hatch; \$1,262,564 for expenses at Plant Vogtle; and \$26,120,379 for expenses at Plant Farley. *See id.* at 4-7.

To recover those costs as damages, plaintiffs must prove that the costs were reasonably foreseeable, that the government’s breach caused the expenditures, and that the damages are shown to reasonable certainty. *Indiana Michigan*, 422 F.3d at 1373.

As this court has previously observed, “[n]uclear fuel storage is inherently a sensitive and expensive endeavor.” *Yankee Atomic Electric Co. v. United States*, 113 Fed. Cl. 323, 333 (2013). Here, the parties have agreed that the stipulated costs were incurred “in connection with construction, operation, and/or maintenance of its dry storage facilit[ies]” at plants Farley, Hatch and Vogtle. Doc. 136 at 4, 5, 6. And because the necessity for each utility to construct its own dry storage is clearly a foreseeable consequence of the government’s failure to provide such storage, the costs to do so are also foreseeable.

These costs have also been shown to a reasonable certainty. The parties conducted a thorough audit process in accordance with the court's order, dated January 9, 2009. *See* Doc. 32. At the court's direction, that parties summarized all damages figures and exchanged schedules of the same, along with:

a statement describing the source(s) for the items or figures listed (*e.g.*, ledgers, journals payrolls, invoices, checks, time cards, etc.), the location(s) of the source(s), the time during the discovery period when the source(s) may be examined or audited by the opposing party, the name and address of the person(s) who prepared each schedule or summary and who shall be made available to the opposing party during an examination or audit of the source material to provide information and explanations required for verification of the listed items or figures.

Doc. 32 at 1. These schedules of damages were then filed with the court prior to trial. *See* Doc. 137 (Plaintiffs' Revised Exhibit List). The parties, in fact, stipulated prior to trial that a majority of plaintiffs' costs were actually incurred. *See* Doc. 136.

That leaves plaintiffs to prove causation with regard to the stipulated costs. Plaintiffs claim in their post-trial brief that "[t]he Government does not dispute Southern's entitlement to \$59,431,458." Doc. 149 at 8. In its post-trial response brief, the government denies concession to this amount in damages, insisting that it has agreed only that plaintiffs have incurred \$59,431,458 in costs. *See* Doc. 152 at 38. The government argues: "Southern apparently believes that it is entitled to recover all costs that it incurred in furtherance of its dry storage facility, even though some of those costs would have been incurred with DOE performance." *Id.* Because plaintiff failed to submit a model of non-breach world damages for the costs included in the \$59 million, the argument goes, plaintiffs should not recover any part of those costs. *Id.*

The government is correct that plaintiffs, as part of their causation proof, are responsible for presenting a "comparison between the breach and non-breach worlds." *Yankee Atomic*, 536 F.3d at 1273. In order to determine how much damage the plaintiff has sustained, the court must understand "the extent to which his incurred costs differ from the costs he would have incurred in the nonbreach world." *Energy Nw.*, 641 F.3d at 1306. *See also Bluebonnet Sav. Bank*, 67 Fed. Cl. at 238 ("[B]ecause plaintiffs in this case are seeking expectancy damages, it is

incumbent upon them to establish a plausible ‘but-for’ world.”). This requirement is not, as plaintiffs suggest, a technicality. *See* Doc. 158 at 11.

But the government is over zealous in its argument. While it is true that plaintiffs did not enter into evidence a document entitled “Model of Damages in the Non-Breach World” with respect to the stipulated costs, previous findings of this court and evidence in the record are sufficient to satisfy plaintiffs’ burden. In advocating for its strict interpretation of this requirement, the government asks the court to elevate form over substance in a truly useless way.

This court held in the first phase trial that plaintiffs’ dry storage facilities would not have been necessary had DOE performed under the contract. *See S. Nuclear Operating Co., et al. v. United States*, 77 Fed. Cl. 396, 459 (2007). Testimony in the second phase trial was in accord with this earlier conclusion. *See* Tr. at 110:14 (Mr. Cocherell testified that plaintiffs would not have needed to construct dry storage facilities at any of its plants had DOE performed.); Tr. at 554:16-23, 557:4-11, 557:24-558:10 (Mr. Metcalfe testified that had DOE performed, plaintiffs could have avoided incremental dry fuel storage at each facility at issue.). As plaintiffs correctly point out, “a utility can certainly take the position that certain categories of costs would have been \$0 in the nonbreach world.” *See* Doc. 158 at 10 (citing *Yankee Atomic Power Co. v. United States*, 94 Fed. Cl. 678, 710-11 (2010) (holding that “[i]n [the] non-breach world, the Yankees’ dry storage costs would have been zero because dry storage would not have been built”)).

The government stipulated, prior to this second phase trial, that plaintiffs incurred: (1) \$26,120,379 “in connection with construction, operation, and/or maintenance of its dry storage facility at Plant Farley,” Doc. 136 at 4; (2) \$32,048,515 “in connection with construction, operation, and/or maintenance of its dry storage facility at Plant Hatch,” *id.* at 5; and (3) \$1,262,564 “in connection with the planning and design of its dry storage facilities at Plant Vogtle Units 1 and 2,” *id.* at 6. These stipulations amount to \$59,431,458.

Because the dry storage facilities were only necessary due to the government’s breach, it is a reasonable and small inference that the non-breach world costs associated with those facilities would have been zero. It logically follows, then, that the costs stipulated as directly related to those facilities were caused by the government’s breach.

Indeed, although the government pays lip service to its position that plaintiff should not recover anything at all, it effectively concedes that \$59,431,460 of plaintiff's claim is recoverable. *See* Doc. 152 at 12, 84. The government offers the \$59,431,460 figure as its own "non-breach model." *See id.* at 84. It apparently arrived at this number by taking plaintiffs' total damages claim of \$77.4 million, and subtracting from that figure the various items that it contested at trial, which are discussed in detail below.

Thus, with regard to this portion of the damages claim, the plaintiffs and the government apparently agree on the recoverable amount. Plaintiffs, therefore, are entitled to recover these stipulated costs in an amount of \$59,431,458.

II. Fuel Characterization and Loading Costs

Under the terms of the Standard Contract, plaintiffs are responsible for providing "all preparation, packaging, required inspections, and loading activities necessary for the transportation of SNF and/or HLW to the DOE facility." Plaintiffs' Ex. 1 at IV.A.2(a).

Although they do not dispute this contractual obligation, plaintiffs seek to recover the costs incurred for fuel characterization in an amount of \$964,793, *see* Doc. 149 at 24, and the internal and third-party labor costs incurred for loading the fuel into casks in an amount of \$6,946,436, *see id.* at 20. They argue that "[b]ecause Southern will need to incur fuel characterization and loading costs again in the future when DOE performs, those costs incurred to date for the Holtec cask system are recoverable." *Id.* at 19.

The government takes issue with plaintiffs' position on several grounds, including that plaintiffs cannot recover fuel characterization and loading costs now because it would have incurred these costs in the non-breach world. *See* Doc. 152 at 61-63. Plaintiffs did not present a hypothetical model of what the non-breach world costs would have been, and the government contends, if they had it "would have shown that Southern would have characterized its fuel before loading to DOE, just as it did to load to dry storage." *Id.* at 61-62. In addition, the government points out that plaintiffs' own expert, Mr. Metcalfe, identified loading costs as non-breach world costs. *Id.* at 62 (citing Tr. at 586:3-8).

Plaintiffs rely heavily on the Federal Circuit's reasoning in the second round of the *Carolina Power* litigation to support their argument. In that case, the government argued that because of its breach, the plaintiff avoided certain costs

that it would have incurred in the non-breach world, and therefore, plaintiff's damage claim should be reduced. *See Carolina Power & Light Co. v. United States*, 573 F.3d 1271, 1277 (Fed. Cir. 2009). The court denied the government's request, holding that: "Just as the utilities cannot now collect damages not yet incurred under the ongoing contract, the government cannot prematurely claim a payment that has not become due." *See id.* (quoting *Yankee Atomic*, 536 F.3d at 1281).

Despite the fact that plaintiffs here seek to recover damages that have actually been incurred—and are, in fact, neither deferred nor avoided—they argue that the *Carolina Power* decision supports an award of its characterization and loading costs. The court disagrees.

As this court held in the recent *Yankee Atomic* decision, "a case in which the government seeks to avoid responsibility for costs not yet incurred is fundamentally different from a case where the plaintiffs seek to avoid responsibility for proving that actually-incurred damages were caused by the government's breach are recoverable." *See Yankee Atomic*, 113 Fed. Cl. at 342.

Plaintiffs have misinterpreted the import of the Circuit's *Energy Northwest* decision on its *Carolina Power* decision. As such, the court's reasoning from the second round *Yankee Atomic* decision bears repeating.

In *Energy Northwest v. United States*, the plaintiff sought to recover the costs incurred for plant modifications under the theory that "the issue is not whether the modification costs would have been incurred in a hypothetical non-breach world, but whether they will be incurred again in the future, when the DOE ultimately performs and begins accepting the . . . SNF." 641 F.3d 1300, 1305 (Fed. Cir. 2011). The government insisted that the plaintiff could not recover for these plant modifications because it had failed to demonstrate what its costs would have been in the non-breach world, citing the first-round *Yankee Atomic* case, 536 F.3d 1268.

The Circuit explained the various precedent as follows:

These cases address separate aspects of the damages analysis. *Yankee Atomic* shows the importance of proving causation by comparing a hypothetical "but for" world to a plaintiff's actual costs. 536 F.3d at 1273-74. Under its rule, *a plaintiff* must prove the extent to which his incurred costs differ from the costs he would have incurred in the non-

breach world. *Carolina Power* addresses the separate circumstance where *a breaching party* seeks to offset an award by proving that the non-breaching party has achieved some cost savings because the breach permitted it to avoid—not just defer—some aspect of performance. 573 F.3d 1277.

Energy Northwest, 641 F.3d at 1306-1307 (emphasis added). The court agreed with the government, holding that “[b]efore considering any offsets to the award, the trial court had an obligation to first establish that the entire awarded damages were actually caused by the breach,” and that the plaintiff had an “obligation to prove the recoverable costs associated with that construction,” noting that “[i]f a cost would have been incurred even in the non-breach world, it is not recoverable.” *Id.* at 1307.

As in the *Yankee Atomic* decision, plaintiffs here “improperly attempt to apply to their own proof of damages a rule governing the breaching party’s burden to prove entitlement to an offset against those damages. The *Carolina Power* analysis simply does not apply to plaintiffs’ damages in this instance.” *Yankee Atomic*, 113 Fed. Cl. at 343.

The court is not immune to the equitable appeal of plaintiffs’ argument that they should not be required to shoulder the expense of re-characterizing or re-loading their fuel. The court, in fact, agrees that a party should not ultimately be made to pay twice for an expense it is obligated to pay only once under a contract. In order to recover for such an injury, however, it makes good sense to require that the injury first be sustained. Without proof of a difference between the breach world and non-breach world costs as to characterizing and loading, the court cannot find that plaintiffs have yet been injured.

Plaintiffs attempt to avoid this problem, at least with respect to the loading costs, by arguing that they would not have incurred *these particular* costs, for loading the Holtec casks, in the non-breach world. Rather, they would have incurred the costs for loading the DOE-provided casks. *See* Doc. 149 at 20; Doc. 158 at 12-13. This argument seems to imply that plaintiffs’ costs to load Holtec casks would have been zero in the non-breach world, making all such costs incurred in the breach world recoverable.

This is a specious distinction. Plaintiffs are essentially arguing that because their mitigation efforts are not identical to what performance under the contract would have been, the two costs should not be compared in the causation analysis.

As an initial matter, plaintiffs may very well have been obligated to incur the costs of loading Holtec casks in the non-breach world. *See* Tr. at 335:5-6 (Zabransky testimony that DOE may choose to use the Holtec system). If that were the case, plaintiffs would not recover any of the loading costs they now claim, even under their own analysis.

But even assuming the government would have chosen a cask other than Holtec, plaintiffs cannot recover here. Given the government's failure to identify a cask, the court does not fault plaintiffs for their inability to provide a precise calculation of the cost difference between DOE and Holtec casks. *See Locke v. United States*, 151 Ct. Cl. 262, 267 (1960) ("The defendant who has wrongfully broken a contract should not be permitted to reap advantage from his own wrong by insisting on proof which by reason of his breach is unobtainable."). Plaintiffs, however, failed to make any showing at all that the loading costs would be different for *any* other available cask system. As such, plaintiffs have not met their burden to demonstrate damages.

Plaintiffs also argue that the government should be collaterally estopped from contesting its alleged damages for loading costs because loading costs were awarded in the first round of litigation. *See* Doc. 149 at 21 n.6. Plaintiffs' claim fails on the first requirement for collateral estoppel—that the "issue is identical to one decided in the first action." *See Laguna Hermosa Corp. v. United States*, 671 F.3d 1284, 1288 (Fed. Cir. 2012) (listing the four requirements to prove collateral estoppel). In the first-round case, the court found that the government failed to prove entitlement to an offset. *See S. Nuclear Operating Co. v. United States*, 77 Fed. Cl. 396, 450 (2007). But here, the issue is plaintiffs' responsibility to prove their damages. Which, as the Federal Circuit explained in its *Energy Northwest* decision discussed above, is a separate issue that must be addressed prior to considering any offsets sought by the government. *Energy Northwest*, 641 F.3d at 1307.

Plaintiffs have failed to prove that they incurred characterization or loading costs that would not have been incurred in the non-breach world. Recovery for such costs are, therefore, denied.

III. Equipment and Plant Modifications

Plaintiffs claim entitlement to approximately \$5.7 million in damages for costs related to equipment, plant modifications, loading procedures development, and an engineering study. *See* Doc. 149 at 10. Unlike the fuel characterization and

loading costs, which plaintiffs certainly would have incurred in the non-breach world, plaintiffs contend that these items either would have been provided by DOE in the non-breach world, or would not have been necessary had DOE performed. *See* Doc. 149 at 10. The government disputes the claim, arguing that these costs would have been incurred by plaintiff in the non-breach world, and are, therefore, not recoverable. *See* Doc. 152 at 39.

Under the terms of the Standard Contract, DOE's responsibilities are, in relevant part, as follows:

DOE shall arrange for, and provide, a cask(s) and all necessary transportation of the SNF and/or HLW from the Purchaser's site to the DOE facility. Such cask(s) shall be furnished sufficiently in advance to accommodate scheduled deliveries. Such cask(s) shall be suitable for use at the Purchaser's site, meet applicable regulatory requirements, and be accompanied by pertinent information including, but not limited to, the following:

- (a) written procedures for cask handling and loading, including specifications on Purchaser-furnished cannisters [sic] for containment of failed fuel;
- (b) training for Purchaser's personnel in cask handling and loading, as may be necessary;
- (c) technical information, special tools, equipment, lifting trunnions, spare parts and consumables needed to use and perform incidental maintenance on the cask(s), and
- (d) sufficient documentation on the equipment supplied by DOE.

Plaintiffs' Ex. 1 at IV.B.2.

In order to determine which costs plaintiffs are entitled to recover, the court must balance the government's responsibilities under the contract against plaintiffs' responsibilities to provide "all preparation, packaging, required inspections, and loading activities necessary for the transportation of SNF and/or HLW to the DOE facility." Plaintiffs' Ex. 1 at IV.A.2. The court finds that plaintiffs are entitled to recover for items that are so related to either dry storage, or the casks that they were forced to purchase because of the government's breach, so

as to be part and parcel of their mitigation efforts. Plaintiffs, however, cannot recover for items so related to each individual site that the costs fall within the universe of preparation and loading costs. Deciding on which side of this line each item falls is, obviously, an intensively fact-specific inquiry. After careful consideration of the testimony and other evidence in the case, the court has divided plaintiffs' claim as follows.

A. Recoverable Costs

1. Plant Hatch

In order to accommodate the Holtec cask system, Georgia Power installed “additional power supplies for the forced helium dehydrator and supplemental cooling system,” along with “a new HVAC system to alleviate the higher temperatures on the refueling floor that resulted from adding this additional equipment.” Doc. 149 at 40-41. These modifications cost \$1,187,476. *See* Doc. 169 at 6. The government argues that Georgia Power cannot recover for the modifications because they would have been required with DOE performance. *See* Doc. 152 at 56.

a. Power Supplies for Forced Helium Dehydrator and Supplemental Cooling System

Loading SNF into a cask takes place underwater, in the spent fuel pool. *See* Tr. at 161:15-23 (Ripple). In order to protect the structural integrity of the cask, any water left in the cask from the loading process must be extracted prior to sealing the lid, which is accomplished in one of two ways—through vacuum drying or forced helium dehydration. *See* Doc. 149 at 41 (citing Tr. at 161:15-162:20) (Ripple), Tr. at 256-259 (Bunt)). Here, Georgia Power had a vacuum drying system in place, *see* Tr. at 245:10-19 (Bunt), but installed helium dehydration equipment, as required for the Holtec casks chosen by Georgia Power in its mitigation efforts. *See* Tr. at 256-259 (Bunt). In addition, Georgia Power installed a supplemental cooling system to ensure that the Holtec casks did not get too hot during the loading process. Tr. at 256:25-257:6 (Bunt).

The government has already stipulated that the cost of these systems are related to Georgia Power's dry storage efforts. *See* Doc. 136 at 5-6; Plaintiffs' Ex. 5 at 2. As such, Georgia Power will recover for the equipment expenses as part of the recovery awarded above for costs uncontested at trial. What the government specifically contests here is the cost of building modifications to provide the

necessary power supplies for the dehydration and cooling systems. *See* Doc. 152 at 55.

The government argues that the plant modifications would have been required in the non-breach world because Georgia Power would be unable to load high burn-up fuel with a vacuum dehydration system. *See* Doc. 152 at 55. In support of this assertion, the government offers Mr. Maret's opinion that "the same modifications would be necessary if DOE had performed and provided the equipment for—the cask equipment for Southern's use." Tr. at 871:7-10. Mr. Maret also testified, however, that he was "not certain" whether any other cask manufacturer uses helium dehydration. Tr. at 912:9. In light of the government's refusal to identify the cask system it would have used in a non-breach world, *see* Tr. at 327:16-24 (Zabransky), it is unclear to the court on what basis Mr. Maret could have testified that Georgia Power would have been required to provide power supplies for helium dehydration and supplemental cooling systems in the non-breach world, while also failing to identify a single non-Holtec cask that would have required such modifications. This incongruity in Mr. Maret's testimony prevents the court from crediting his opinion on this point. Mr. Maret's testimony is also at odds with Mr. Bunt's testimony that vacuum drying systems continue to be common in the industry. *See* Tr. at 261:12-13.

The court has previously held that plaintiffs' choice to use Holtec casks was reasonable mitigation. *S. Nuclear*, 77 Fed. Cl. at 432 ("The court concludes plaintiffs' reracking and ISFSI decisions were reasonable mitigation given the utilities' rational belief that DOE was not going to commence performance in January of 1998, or at any reasonably foreseeable time thereafter.") Furthermore, it is clear that Georgia Power installed the power supplies at issue to support the helium dehydration and supplemental cooling systems required to use the Holtec casks. *See* Tr. at 258:24-259:3 (Bunt); 161:3-5 (Ripple). As such, the court holds that the government's breach caused Georgia Power to install the power supplies.

Because the government has failed to demonstrate that Georgia Power's mitigation decision with regard to the dehydration and supplemental cooling systems was unreasonable, no offset is warranted.

b. HVAC System

Prior to installation of the forced helium dehydrator and the supplemental cooling system, Georgia Power controlled temperatures on the loading room floor through use of "stay times" and "cooling vests" worn by employees. Tr. at 287:5-

17 (Bunt). After installation of the helium dehydrator and supplemental cooling system, however, these methods were no longer sufficient due to the increased heat load caused by the new equipment. Tr. at 261:14-16 (Bunt) (testifying that increased temperatures were “specifically attributed to the forced helium dehydrator”); Tr. at 259:24-25 (Bunt) (stating that plaintiffs added “chilling units to offset that heat load increase on the floor”). To compensate for the increased temperatures, Georgia Power installed an HVAC system on the loading room floor. Tr. at 260:21-23 (Bunt). Georgia Power claims that it should recover the costs of the HVAC system because it would not have been necessary in the non-breach world.

The government does not dispute the fact that the increased temperatures were attributable to the new equipment. Instead, it attacks Georgia Power’s claim on two grounds, arguing that they should not recover because: (1) Georgia Power would have installed the HVAC unit in the non-breach world because it would not have been able to continue using their vacuum-drying system and any replacement system would have increased temperatures; and (2) Georgia Power benefitted from the HVAC unit beyond offsetting the heat increases caused by the helium dehydration and supplemental cooling systems, and would have made the modifications to improve conditions at the plant even had it not installed the new drying equipment. *See* Doc. 152 at 56-57.

As explained above, the government’s evidence that Georgia Power would necessarily be unable to continue using a vacuum-drying system is unpersuasive, and therefore cannot serve as the basis for offsetting its damages for the HVAC equipment.

In support of its argument that Georgia Power would have installed the HVAC unit even if it had not installed the helium dehydrator and supplemental cooling system, the government insists that “the modification was ‘required’ not just for cask loading, but as a ‘betterment’ to Plant Hatch.” Doc. 152 at 57 (citing Tr. at 285:22-286:18 (Bunt); Defendant’s Ex. 58 at KRGSNCIIb-005996 (a work order that includes the term “plant betterment” in reference to the HVAC improvements)).

Georgia Power, however, presented evidence that they would not have installed the HVAC system in the non-breach world. Mr. Bunt testified that he would not have expected any changes in the cooling system, as Georgia Power had “not modif[ied] any cooling up there for the first nine, ten years of operation of dry storage, utilizing the vacuum drying system” Tr. at 261:5-13 (Bunt). He also

explained that the modifications were designed to offset only the additional heat from the new equipment, not to compensate for pre-existing heat problems:

Those modifications were to offset the additional heat load that was added to the refueling floor because of the added heater and chiller functionality of the [forced helium dehydrator] system. And the way we sized that chiller unit is we looked at the additional heat load from those two components and we made sure that the chillers were capable of offsetting that heat load to the floor. We did not do a full heat load calculation of the floor, only the delta heat load difference for the new equipment.

Tr. at 260:21-261:4 (Bunt).

The court finds that Georgia Power made a reasonable effort to limit its mitigation efforts to the scope of the damage caused by the breach—here, the increased heat load specifically attributable to the dehydration and supplemental cooling equipment. The fact that the work order referred to by the government uses the term “plant betterment” does not change this fact. Even if, as the government suggests, Georgia Power’s reasonably-tailored mitigation efforts had some unintended benefit on the work conditions on the refueling floor, Georgia Power, as the non-breaching party, should not be penalized.

For the foregoing reasons, Georgia Power is entitled to recover \$1,187,476, the costs of installing power supplies for the forced helium dehydration, supplemental cooling, and HVAC systems at Plant Hatch, and no offset is warranted.

2. Plant Vogtle

Plant Vogtle includes four reactor units. Units 1 and 2 are operational, *see* Tr. at 267:16-17 (Bunt), and the storage of SNF from these two units is the subject of this lawsuit. Units 3 and 4 are in the construction phase, *see* Tr. at 267:15-16, and any future SNF storage needed for these units is unrelated to the breach at issue. Georgia Power made a number of modifications at Plant Vogtle, not all of which are recoverable. The court will address each modification in turn, but finds that Georgia Power may recover ISFSI engineering and design costs and the construction costs of a new sally port.

a. ISFSI Engineering and Design Costs

While assessing dry storage options for SNF from Units 1 and 2, Georgia Power hired Bechtel Corporation to conduct a comprehensive design and engineering study. The study “involved looking at the plant site, identifying where an ISFSI could go, what would be entailed in all the activities inside the building, outside the building, to go through the full functionality of going to an ISFSI” Tr. at 265:16-20 (Bunt). In the work order, the scope of the project was defined as follows:

Develop an overall plan for the design and implementation of the [Plant Vogtle] ISFSI. The ISFSI will meet the fuel storage life cycle requirements for Units 1 and 2, with consideration for Units 3 and 4. The ISFSI will be designed to accommodate 250 casks for Units 1 and 2, with consideration for 50 additional casks to support an 80 year plant life and consideration for an additional 200 casks for Units 3 and 4.

Defendant’s Ex. 69 at KRGSNCIIb-006053. These services cost \$1,489,258. *See* Doc. 169 at 3.

The government claims that Georgia Power should not recover any costs of the study, reasoning that it would have spent the same amount on a study in the non-breach world. Georgia Power, so the argument goes, would need to build an ISFSI for Units 3 and 4 irrespective of the government’s breach. And because the cost of the study is not dependent on the size of the ISFSI, Georgia Power would have paid the same amount for a future study that only applied to Units 3 and 4. *See* Doc. 152 at 65-66. Therefore, it should not recover those costs now.

Georgia Power acknowledges that the cost of the ISFSI study is not dependent on the size of the structure, *see* Doc. 149 at 60, but it effectively counters the government’s position that these costs should be attributed to Units 3 and 4. Mr. Bunt testified that the study only analyzed the storage needs for Units 1 and 2, and did not support the future storage of fuel from Units 3 and 4 because the fuel from Units 3 and 4 would have significantly different characteristics, and therefore different storage requirements, than the fuel from Units 1 and 2. *See* Tr. at 266:1-267:2. He also testified that Georgia Power has no present plan for storing fuel from Units 3 and 4 on the ISFSI, and that it is not permitted to do so under their current NRC license. *See* Tr. at 267:3-11. Both Mr. Bunt and Mr.

Cash testified that the study was paid for entirely from funds allocated for Units 1 and 2, *see* Tr. at 267:25-268:4 (Bunt); Tr. at 793:20-21 (Cash).

The government cites to several documents relating to the study that discuss Units 3 and 4—including the work order for the study, *see* Defendant’s Ex. 69; the study itself, Defendant’s Ex. 81; and several PowerPoint presentations about the study, *see* Defendant’s Exs. 71, 73, 97. The mention of Units 3 and 4 in these documents does not undercut Georgia Power’s position that the central purpose of the study was to facilitate dry storage for fuel from Units 1 and 2. For example, the Bechtel study states one of its goals as follows: “Design and implement the [Plant Vogtle] ISFSI in such a way that spent fuel storage for Units 3 and 4 can be accommodated; that is, not precluded.” Defendant’s Ex. 81 at KRGSNCIIb-005784. Ensuring that future storage is not precluded does not shift the costs of the study to that future storage project. The language of the work order, likewise, indicates that Units 1 and 2 are truly the subject of the study, stating that the study will plan an ISFSI to “meet the fuel storage life cycle requirements for Units 1 and 2, with *consideration* for Units 3 and 4.” Defendant’s Ex. 69 at KRGSNCIIb-006053 (emphasis added). It simply makes no sense to ignore the existence of a future project when dealing with something as serious, and as potentially hazardous, as storing spent nuclear fuel.

Georgia Power is, therefore, entitled to recover \$1,489,258 in connection with engineering and design costs for Vogtle Units 1 and 2, and no offset is warranted.

b. Sally Port Construction Costs

Georgia Power seeks to recover \$486,595 in compensation for construction costs of a new sally port. *See* Doc. 169 at 3. Georgia Power built the new sally port because the existing port led to a road that could not bear the combined weight of the loaded Holtec casks and the transportation vehicles, some 600,000 pounds. *See* Tr. at 795:16-22 (Cash). The opening of the sally port was also too narrow for the large transportation vehicles required to move the loaded casks to the ISFSI. *See* Tr. at 795:22-25 (Cash). In the non-breach world, however, Georgia Power claims that it would not have needed the new sally port because the government would have brought smaller casks, in accord with its contractual obligation to provide casks “suitable for use at the Purchaser’s site.” Plaintiffs’ Ex. 4 at IV.B.2. In addition to the sally port limitations, Georgia Power argues that the government would have provided small casks to Plant Vogtle because there was no functional rail spur at the site, therefore requiring the government to remove the SNF in

smaller, lighter casks by truck. *See* Doc. 149 at 62; Tr. at 271:13-16, 315:17-316:21 (Bunt). Georgia Power insists that the original sally port could have accommodated any cask that was appropriate for such over-the-road transport. *See* Doc. 149 at 62; Tr. at 796:10-13 (Cash).

The government's counterargument is two-fold. First, it claims that Georgia Power would have installed the new sally port in the non-breach world because the ability to use larger casks is more efficient, and safer for the plants' workers, since loading fewer, large casks would reduce the radiation to which the workers were exposed during the loading campaigns. *See* Tr. at 271:21-272:4, 272:9-13 (Bunt). *See* Doc. 152 at 64 (citing Tr. at 879:20-880:9 (Maret) (testifying that SNF is "essentially trash" that the plaintiffs "want to get rid of as much as [they] can at a given time"); Tr. at 879:4-7 (Maret) (stating, with regard to loading one-assembly casks, that: "Based on everything I've heard, it looks to me that that would be contradictory to the way Southern or any company that I'm familiar with would choose to conduct business.")). Second, it argues that because Plant Vogtle had a rail spur at some point in the past, and plans to install another spur at some point in the future, *see* Tr. at 271:13-16 (Bunt), that the court should discredit Georgia Power's argument that DOE would have had to remove casks by truck. *See* Doc. 152 at 64-65.

It is useful in examining this particular item on plaintiffs' list of damages to consider what is meant by the short-hand terms "breach world" and "non-breach world." What the court, and presumably the parties, mean in using these terms is: (1) the "breach world" refers to the collection of circumstances that exist, along with the actions that were taken by the parties, because a party breached one or more of its contractual obligations, and (2) the "non-breach world" refers to the collection of circumstances and actions that one would expect to have occurred had both parties performed their contractual obligations. It is tempting, however, to stretch the term "non-breach world" to refer to all circumstances one would reasonably expect to see had a breach not occurred—in other words, to divorce the expected circumstances or actions from the language of the contract. The difference appears subtle, but the sally port question brings it into relief.

Here, it seems very likely to the court that, as the government argues, Georgia Power would have made plant modifications to accommodate larger casks. The efficiencies of time and money, along with the reduction in risk to workers, are considerable. On this basis, the government asks the court to find that in the "non-breach world," Georgia Power would have installed a new sally port, and thus, disallow recovery of construction costs. The problem with this argument is

that these very reasonable, and even likely, steps are not required by the contract, and it is merely speculation that Georgia Power would have taken them. Therefore, insofar as the non-breach world is one in which the parties abide by their contractual obligations, the court finds that Georgia Power would not have been required to install a new sally port. The government is, in fact, required under the contract to deliver casks that are “suitable for use at the Purchaser’s site.” Plaintiffs’ Ex. 4 at IV.B.2. And casks requiring expensive building modifications are, by definition, not “suitable for use at the Purchaser’s site.”

As such, Georgia Power is entitled to recover the sally port construction costs in an amount of \$486,595, and no offset is warranted.

3. Plant Farley

Alabama Power made a number of modifications at Plant Farley, not all of which are recoverable. The court will address each modification in turn, but finds that Alabama Power may recover for the pit covers and loading procedure development.

a. Pit Covers

Alabama Power designed and installed new loading pit and wash pit covers to accommodate the Holtec casks, while still leaving enough room for activities associated with closing the casks. *See* Doc. 149 at 48. Specifically, the Holtec dehydration equipment required considerable space. *See* Tr. at 158:5-12 (Ripple). Alabama Power argues that it would not have incurred these costs in the non-breach world because the government would have brought the equipment necessary to load DOE casks, which it assumes would not be Holtec, and therefore, would not have created a space issue. *See* Doc. 149 at 48-49. The pit covers cost \$69,364. *See* Doc. 169 at 4.

The government counters that because of the limited floor space in the plant, Alabama Power would have replaced the pit covers in the non-breach world simply to conduct “normal operations of the plant.” Doc. 152 at 46; Tr. at 852:21-853:11 (Maret).

Neither party hits precisely on the reasoning that the court believes is best supported by the evidence in this case. The Standard Contract specifically states that the government will provide casks that are “suitable for use at the Purchaser’s site” and that the government will provide equipment “needed to use . . . the

cask(s).” Plaintiffs’ Ex. 1 at IV.B.2. The term “suitable for use,” read along with the government’s obligation to provide equipment “needed to use” the casks, implies that the casks chosen would not *require* major building renovations. Here, the casks that were reasonably chosen in mitigation required new pit covers to accommodate necessary equipment. As with the penetrations at Plant Farley, the pit covers were installed to create room for the dehydration system which is required for the Holtec casks. Because Alabama Power purchased and loaded the Holtec casks as a result of the government’s breach, it is entitled to recover for the modifications that were necessary to facilitate the loading process—including the new pit covers.

Alabama Power is entitled to recover \$69,364 for the pit covers, and no offset is warranted.

b. Loading Procedure Development

Alabama Power seeks to recover \$303,030 for site-specific loading procedure development. *See* Doc. 169 at 3. The argument is straightforward—the Standard Contract states that the government will provide “written procedures for cask handling and loading, including specifications on Purchaser-furnished cannisters [sic] for containment of failed fuel. . . .” Plaintiffs’ Ex. 1 at IV.B.2(a).

The government acknowledges this language in the Standard Contract, but claims that DOE is only required “to provide general written procedures for loading,” but not “site-specific loading procedures.” *See* Doc. 152 at 57. In support of its position, the government offers the testimony of Mr. Zabransky, the contracting officer for the Standard Contract, and Mr. Maret, one of the government’s experts. First, Mr. Zabransky testified that “it’s [the utilities’] responsibility to take those procedures [from DOE] and make them site-specific.” Tr. at 741:4-7. Mr. Maret then testified that Alabama Power should be charged with site-specific procedure development because those procedures “are associated with how the plant [is] managed and operated, and they’re all done in accordance with the Part 50 license, which is held by the customer, by Southern Company or the owners of the facility, not by DOE.” Tr. at 869:24-870:4. Mr. Maret also stated in his expert report that “basic loading operations for all spent fuel casks are common and generic procedures are typically provided by cask vendors, variations in the plant design and plant licensing requirements necessitate that procedures be customized for each plant.” Defendant’s Ex. 74 at 16.

The language of the Standard Contract does not distinguish between general and site-specific loading procedures. And if, as Mr. Maret explained, the cask vendor or manufacturer provides general instructions, it stands to reason that the government's contractual responsibility is to provide something more than that. Furthermore, there are additional indications in this section of the Standard Contract that the government agreed to take specifics of each plant into consideration. The contract states, for example, that the government will furnish casks that are "suitable for use at the Purchaser's site, meet applicable regulatory requirements, and be accompanied by pertinent information," and that the government will provide "training for Purchaser's personnel." Plaintiffs' Ex. 1 at IV.B.

One of the cardinal rules of contract interpretation is that "[i]f the terms of a contract are clear and unambiguous, they must be given their plain meaning." *Barron Bancshares, Inc. v. United States*, 366 F.3d 1360, 1375 (Fed. Cir. 2004). A contract term is only ambiguous if it is "susceptible to more than one reasonable meaning." *Id.* at 1375-76. The court finds that the contract language at issue here is unambiguous, and requires the government to provide site-specific loading procedures. The government certainly could have circumscribed the specificity of the procedures it agreed to provide in the contract language, but did not do so.

Alabama Power is entitled to recover \$303,030 for loading procedure development, and no offset is warranted.

B. Unrecoverable Costs

1. Plant Vogtle Crane Modifications

Georgia Power seeks to recover \$289,330 for modifications made to the crane at Plant Vogtle. *See* Doc. 149 at 63. It claims that it only modified the crane to accommodate the 125-ton Holtec casks, and that because the crane could have been used without modification to lift single-assembly, 25-ton casks, the modifications would not have been necessary in the non-breach world. *See id.* at 63-64.

The crane at Plant Vogtle was derated, meaning its permissible load was reduced, for a number of reasons, including "reliability" problems. Tr. at 274:12 (Bunt). The evidence adduced at trial does not support a finding of a definite weight that the derated crane could safely handle. Mr. Bunt, Georgia Power's Severe Accident Management Manager, explained: "The placard I saw was 55 tons

that it was derated to, and then it was administratively controlled to a value less than that so that you never approach that value.” Tr. at 277:12-15. When asked what that administratively controlled value was, he could not recall. *See* Tr. at 277:17 (Bunt).

While Georgia Power did elicit an admission from Mr. Zabransky on cross-examination that the crane could have hoisted a 25-ton, single-assembly cask, *see* Tr. at 334:18, his testimony is at odds with the testimony of Mr. Cash, who served as project manager for the Vogtle Major Project Groups until shortly before the trial started, *see* Tr. at 756:8-12 (Cash). Mr. Cash testified that, due to problems with the crane’s main hook, Georgia Power was unable to lift the 25-ton casks that they planned to use to remove damaged fuel rodlets from the plant. *See* Tr. at 771:13-16.

Georgia Power’s theory for recovery depends on a finding that the crane, in its unrepaired state, was capable of lifting an existing cask. *See* Doc. 149 at 63-64. Because the most credible evidence at trial indicates that the crane would have had problems handling even the relatively small load of 25 tons, the court finds that Georgia Power would have repaired the crane in the non-breach world. Therefore, it cannot recover the expenses for doing so.

2. Plant Farley

Alabama Power claims that it should recover for a number of modifications at Plant Farley pursuant to the government’s obligation to provide “technical information, special tools, equipment, lifting trunnions, spare parts and consumables needed to use and perform incidental maintenance on the cask(s),” Plaintiffs’ Ex. 1 at IV.B.2(c), including the power distribution and piping penetrations, the work platform,⁴ the lift yoke support arm, and the lift yoke extension and stands. *See* Doc. 149 at 46-56. The court holds that Alabama Power cannot recover these costs for the following reasons.

⁴ In the first *Southern* case, the court awarded plaintiffs damages for a work platform installed at Plant Hatch, holding that there was “no dispute that the platform was required to load” the casks. *See S. Nuclear*, 77 Fed. Cl. at 452. The evidence in this case does not support the same conclusion.

a. Power Distribution and Piping Penetrations, Units 1 and 2

As Georgia Power did at Plant Hatch, Alabama Power modified the power supplies at Plant Farley, in both Unit 1 and Unit 2, to accommodate the power requirements of the forced helium dehydrator and supplemental cooling system needed to load the Holtec casks. *See* Tr. at 159:10-24 (Ripple) (explaining that Plant Farley had very limited space and so the helium dehydrator and supplemental cooling systems were located outside the building and penetrations through the walls were necessary to connect the equipment on the loading room floor); Tr. at 242:14-18 (Bunt) (testifying that the penetrations would not have been necessary if plaintiffs continued to use the vacuum drying system); Tr. at 244:23-245:19 (Bunt) (explaining that Plant Farley had pre-existing electrical hook-ups and penetrations that supported the vacuum drying system, but that they needed to be modified to support the helium dehydration system, and noting that the penetrations for Units 1 and 2 were of the same type).

The government objects to these expenses, again claiming that Alabama Power would have incurred the costs in the non-breach world because it would have needed to replace the vacuum-drying system with the helium dehydrator and supplemental cooling system even with DOE performance. *See* Doc. 152 at 52-54. This argument fails with respect to Plant Farley for the same reasons it failed with respect to Plant Hatch.

The government makes an additional argument with respect to Plant Farley. It claims that the penetrations were also used for “pool filtration and to install lighting and receptacles in the cash wash pit area.” *See* Doc. 152 at 51, 53-54. In other words, the government argues that Alabama Power would have made the modifications to support functions in both Units 1 and 2 wholly apart from the dehydration and supplemental cooling systems. In making this claim, the government relies heavily on Mr. Maret’s opinion that the lighting and filtration functions are necessary for loading any cask. *See* Tr. at 864:18-868:11.

Alabama Power does not disagree that lighting and filtration are important, but it presented testimony that the modifications, to the extent they affected functions beyond the dehydration equipment, “were made in order to ensure [Plant Farley] had sufficient power for the filtration once we added the additional electrical load.” Tr. at 214:16-18 (Ripple). In fact, Alabama Power successfully loaded casks prior to making any modifications with the vacuum-drying system and the existing electrical work. *See* Tr. at 159:4-6 (stating that plaintiffs switched

to the helium dehydrator system in 2008), and *see* Tr. at 150:4-6 (Ripple) (stating that plaintiffs loaded casks from Farley Unit 1 in 2005 and 2006). *See also* Tr. at 106:11-14 (Cocherell) (citing 2005 as the year in which the first cask was loaded at Plant Farley Unit 1).

The evidence tends to prove that loading activities and pool filtration were functional prior to the plant's decision to install building penetrations at issue. The penetrations were installed to accommodate the helium dehydration system required for the Holtec casks and the necessary changes due to its substitution for the vacuum-drying system. Because Alabama Power purchased and loaded the Holtec casks as a result of the government's breach, the court finds that the government's breach also caused Alabama Power to install the power distribution and piping penetrations.

In order to recover, however, Alabama Power is required to prove not only that the damages were reasonably foreseeable, and that the breach caused the damages, but the damages must also be "shown with reasonable certainty." *Indiana Michigan Power Co. v. United States*, 422 F.3d 1369, 1373 (Fed. Cir. 2005) (citing *Energy Capital Corp. v. United States*, 302 F.3d 1314, 1320 (Fed. Cir. 2002)).

On November 21, 2014, the court ordered plaintiffs to itemize their damages, and to provide record cites to support each figure, because plaintiffs' failure to identify specific dollar figures associated with each claimed item had frustrated the court's effort to finalize this opinion. *See* Doc. 168. In their responsive filing, plaintiffs admitted that they had not proven specific costs attributable to the power distribution and piping penetrations at Plant Farley. *See* Doc. 169 at 5.

It is true that damages need not be "ascertainable with absolute exactness or mathematical precision," but "recovery for speculative damages is precluded." *Indiana Michigan*, 422 F.3d at 1373 (citations omitted). Enough evidence to allow the court to make "a fair and reasonable approximation" is required. *Bluebonnet Sav. Bank v. United States*, 266 F.3d 1348, 1355 (Fed. Cir. 2001) (citations omitted). The court finds that plaintiffs did not submit enough evidence for the court to assign a reasonable value to the power distribution and piping penetrations at Plant Farley. Therefore, even though the court finds that the defendant's breach caused Alabama Power to make these modifications, it cannot recover.

b. Work Platform, Lift Yoke Support Arm, Lift Yoke Extension and Stands

Alabama Power also claims that it should recover for the costs incurred to install the work platform, the lift yoke support arm, the lift yoke extension and the lift yoke extension stands. *See* Doc. 149 at 46-54. The problem with Alabama Power’s argument is the same for each of these items—while they are convenient and smart modifications, they are not *necessary* to load the casks.

Alabama Power installed a work platform at Farley, Unit 2 “to provide access to the cask while we’re doing the welding and decontamination” while loading. *See* Doc. 149 at 46 (citing Tr. at 156:23-25 (Ripple)). The government argues that Alabama Power would have installed the platform in the non-breach world because it makes sense to do so. Mr. Maret testified that the decision to install the work platform was a good one, because it allowed Alabama Power to “facilitate the work and make it more efficient, make it safer and to reduce the potential for radiation exposure. . .” Tr. at 849:15-17. Alabama Power’s good judgment, however, does not necessarily translate into contract recovery. As the government correctly stated: “An installed work platform . . . is not ‘needed to use’ a cask because Southern could have—and actually did—use scaffolding to access the top of its casks.” Doc. 152 at 43. *See also* Tr. at 748:13-17 (Zabransky) (testifying that casks can be loaded with scaffolding instead of work platforms); Tr. 809:5-16 (McCallum) (testifying that plaintiffs have previously used scaffolding to at access the tops of casks); Tr. at 849:4-23 (Maret) (testifying that plaintiffs could have chosen to use scaffolding, but that the work platform was a better solution); Tr. at 903:14-22 (Maret) (testifying that the work platform “makes sense” but is “not necessary to load a cask”).

Alabama Power seeks to recover the costs of installing a support arm for the lift yoke that allowed it to store the lift yoke in the spent fuel pool building. *See* Doc. 149 at 49-52. In the non-breach world, the government would likely have provided the lift yoke itself. *See* Tr. at 901:10-11 (Maret). The evidence shows, however, that Alabama Power had a choice as to how to store the lift yoke. As the plaintiffs explain, “either the yoke must be decontaminated after each use before removing it from the spent fuel pool building or it must be stored within the radiologically controlled spent fuel pool building.” Doc. 149 at 50 (citing Tr. at 854:19-855:13 (Maret)). The court tends to agree with Mr. Maret that Alabama Power’s choice to install the support arm was “ingenuous,” Tr. at 844:25, but as with the work platform, that does not make it necessary, and therefore the government’s responsibility, under the terms of the contract.

For the same reasons, Alabama Power cannot recover for the lift yoke extension and stands. Alabama Power attached the lift yoke extension to the crane hook, and installed stands on which to store it, in order to avoid contaminating the crane components that are stored outside of the spent fuel pool building. *See* Tr. at 152:22-153:3 (Ripple). The alternative to such an arrangement would require plaintiffs to incur repeated decontamination costs. *See* Tr. at 862:7-17 (Maret). Alabama Power argues that the lift yoke extension and stands were necessary for loading the casks. *See* Doc. 149 at 53. The court agrees with the government, *see* Doc. 152 at 49-50, and finds that this equipment, while a “keen solution,” *see* Tr. at 862:12 (Maret), was not necessary.

IV. NRC Fees

Finally, plaintiffs claim that they are entitled to recover a portion of the fees collected by the NRC. As the Federal Circuit has previously explained, “[t]he NRC is required to recover nearly all of its costs of regulating the nuclear power industry from the licensees that it supervises,” pursuant to the Omnibus Budget Reconciliation Act, known as OBRA-90. *Consol. Edison Co. of New York, Inc. v. Entergy Nuclear Indian Point 2, LLC*, 676 F.3d 1331, 1336 (Fed. Cir. 2012) (citing 42 U.S.C. § 2214). It does so by levying a variety of annual fees—some are site-specific, and others are generic and industry-wide. *See id.* at 1337. “The annual fees must have, to the maximum extent practicable, a reasonable relationship to the cost of providing regulatory services in order to meet the requirements of OBRA-90.” Revision of Fee Schedules; 100% Fee Recovery, FY 1999, 64 Fed. Reg. at 31457. This case, like *Consolidated Edison*, involves the generic fees that fund “activities such as the development and provision of regulatory guidance, ‘research,’ and ‘[o]ther safety, environmental, and safeguards activities.’” *See id.* (citing 10 C.F.R. § 171.15).

Prior to 1999, the NRC only charged generic dry storage fees to facilities with ISFSIs onsite. Additional generic fees were charged to all facilities to cover the costs relating to spent fuel pool storage and other decommissioning costs. *See* Doc. 149 at 30. In 1999, the NRC consolidated the generic fees into one fee, known as the Part 171 Spent Fuel Storage/Reactor Decommissioning (“SFS/RD”) fee. *See Consolidated Edison*, 676 F.3d at 1338. The new fee was to be assessed “to those Part 72 licensees who do not hold a Part 50 license and to all operating and non-operating Part 50 power reactor licensees, except those power reactor licensees who have permanently ceased operations and have no fuel onsite.” Revision of Fee Schedules; 100% Fee Recovery, FY 1999, 64 Fed. Reg. 31448 at 31462 (June 10, 1999) (to be codified at 10 C.F.R. pts.170 & 171). The effect of

this rule change was that “all operating power reactor licensees were assessed a portion of the NRC’s generic dry storage costs, regardless of whether or not they had an ISFSI.” Doc. 149 at 31 (citing Tr. at 355:4-10 (Funches)).

Plaintiffs in several cases have since sought to recover a portion of the generic fee, claiming that it was unfairly levied during the time they did not maintain dry storage. The central issue here is whether plaintiffs can prove that the government’s breach caused the increase in fees.

In *Consolidated Edison*, the Circuit set out two possible paths for establishing a causal link between an increased NRC fee and the government’s breach of the Standard Contract: “(1) that NRC’s overall generic costs increased as a result of DOE’s breach, causing the NRC to assess increased generic fees on each of its licensees; or (2) that a 1999 rule changed the fee allocation method as a result of DOE’s breach and increased [plaintiff’s] share of generic fees.” 676 F.3d at 1337. Here, plaintiffs claim a right to recovery on the second basis, “that the 1999 revised fee increased Southern’s share of the generic fees as a result of DOE’s breach.” Doc. 149 at 31.

As in *Consolidated Edison*, plaintiffs’ argument in this case appears to be “that, in a non-breach world, the NRC would not have changed its fee structure, and [plaintiffs] would not have had to pay the portion of the SFS/RD fee attributable to dry storage” for the period of time in which they did not have dry storage facilities. 676 F.3d at 1338; *see* Doc. 149 at 29-30, 39. The Circuit denied recovery in *Consolidated Edison*, holding that plaintiff’s evidence “failed to show that the 1999 rule change was the result of DOE’s breach.” 676 F.3d at 1338. The evidence considered by the Circuit included various public statements by the NRC expressing concern that wet and dry storage were not being treated equitably, and NRC Commissioners’ comments related to the rule change. *See id.* at 1337-39.

In order to recover here, plaintiffs must present more or different evidence to prove the causal link. Plaintiffs rely on the following additional evidence: (1) the testimony of Mr. Jesse Funches, who worked for the NRC from 1987 to 2007, and served as the NRC’s Chief Financial Officer from 1997 until his retirement in 2007; (2) the Spent Fuel Storage and Decommissioning Fee Study, Plaintiffs’ Ex. 70, Attachment 2;⁵ and (3) the testimony of Mr. Metcalfe, plaintiffs’ economics expert, interpreting the NRC’s actions from an economic perspective.

⁵ The government argues that the court should presume that the Federal Circuit reviewed this study because it was part of the record in *Consolidated Edison*. *See* Doc. 152 at 67 n.13. While

Plaintiffs primarily rely on Mr. Funches' conclusion that DOE's delay was the sole factor "that caused the—the dry spent fuel storage part of that fee to be structured the way it was." Tr. at 496:15-17. Mr. Funches believes this to be the case for two reasons.

First, he testified that the new generic fee must have been imposed because of the government's breach, which resulted in the expectation that all facilities would eventually require dry storage. *See* Tr. at 359:5-13 (noting that "all power reactors would need to store spent fuel going into the future because the fuel was not being picked up by the DOE"), 365:4-12 (explaining the relationship to OBRA-90). To conclude otherwise, plaintiffs claim, would run afoul of the mandate that fees be assessed only to the class of licensees who contribute to the costs. *See* Doc. 149 at 33-35.

Plaintiffs posit that the NRC's response to a public comment made during the rulemaking process, which was reviewed by the Federal Circuit in *Consolidated Edison*, supports Mr. Funches' position on this point. A utility objected to the imposition of the new fee structure on the basis that it would not need dry storage "had DOE honored its obligation to take possession of spent fuel by January 1998." *See* Doc. 149 at 35 (citing Revision of Fee Schedules; 100% Fee Recovery, FY 1999, 64 Fed. Reg. at 31455). The NRC responded by recognizing "that sites will be required to continue to store spent fuel onsite until another solution becomes available," but noting that this requirement "does not relieve [the] NRC of the OBRA-90 requirement to recover approximately 100 percent of its budget authority through fees." *Id.* Plaintiffs take the position that this exchange demonstrates a link between the government's breach and the increased fees. *See id.*

Second, Mr. Funches testified that the "NRC staff and Commissioners expressed a desire for the generic dry storage costs [to] be covered by the Nuclear Waste Fund, which necessarily required an actual economic link with DOE's obligations under the Standard Contract." Doc. 149 at 35; *see* Tr. at 365:18-366:15 (Funches). In support of this opinion, Mr. Funches referred to Commissioner Merrifield's and Commissioner McGaffigan's comments that were previously considered by the Federal Circuit. He also points to the Spent Fuel Storage and Decommissioning Fee Study, a document not explicitly discussed by the Federal

it may have technically been considered, the court chooses to review the import of the document here because the Federal Circuit did not specifically discuss it in the *Consolidated Edison* opinion.

Circuit, but one that, like the Commissioners' comments, suggests recovering the fees from the Nuclear Waste Fund. *See* Plaintiffs' Ex. 70, Attachment 2 at 11.

Given that the Nuclear Waste Fund "can only be used 'for purposes of radioactive waste disposal services,'" *see Yankee Atomic Elec. Co.*, 536 F.3d at 1281 (quoting 42 U.S.C. § 10222(c)-(d)), Mr. Funches concludes that "the only rationale for taking funds from the Nuclear Waste Fund was that DOE was not picking up the fuel." Tr. at 370:24-25. Mr. Metcalfe aimed to bolster this conclusion with his opinion that "this is an acknowledgement economically that the NRC realizes that it's the DOE's breach, the DOE's delay in picking up spent fuel that the utilities having to build incremental storage that is causing this generic fee to occur." Tr. at 624:5-9.

The court is bound by the Federal Circuit's decision that the evidence it considered in *Consolidated Edison* is insufficient to establish that the government's breach of the Standard Contract was the cause of the 1999 rule change. Therefore, regardless of the court's view of that evidence, its analysis in this case is restricted to evaluating the new evidence presented by plaintiffs. The court holds that the new evidence is insufficient to establish causation.

Mr. Funches' testimony simply does not add enough to the picture to definitively establish that the government's breach was a substantial cause of the rule change. As Chief Financial Officer, Mr. Funches was not a decision-maker with regard to rule changes. *See* Tr. at 385:21-23; 387:5-388:3 (Funches). And, in fact, he testified that he cannot recall any conversations with, or specific statements from, the Commissioners that directly connected the new fee with the government's breach. *See* Tr. at 390:14-24.

Plaintiffs are, however, offering his testimony as an expert, not a fact witness. Federal Rule of Evidence 702 governs the admissibility of expert testimony, and provides:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;

- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods;
and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

The trial court is tasked with the “gatekeeper” function under Rule 702, “to ensur[e] that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand.” *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 141 (1999) (quoting *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 597) (1993)).

Although the court did not consider it appropriate to exclude Mr. Funches’ testimony prior to trial, *see* Doc. at 129 (order denying the government’s motion to exclude), it is now clear that his opinion is not “relevant to the task at hand.” The evidence presented by plaintiffs as forming the basis for Mr. Funches’ testimony is almost entirely synonymous with the evidence in *Consolidated Edison*. He is essentially arguing, through very protracted testimony, the logic of the plaintiff’s position in *Consolidated Edison*. Regardless of whether this court finds the argument convincing, it has been rejected by the Federal Circuit.

The only new document is the Spent Fuel Storage and Decommissioning Fee Study. *See* Plaintiffs’ Ex. 70, Attachment 2. The study states: “[b]ecause of the delay in the DOE high-level waste repository program, the team recommends that legislation be sought, so that the generic costs associated with NRC’s spent fuel storage activities can be derived from the Nuclear Waste Fund.” *Id.* at 11.

Reliance on this document to establish causation is problematic. As an initial matter, the recommendation is echoed by Commissioner Merrifield’s comments that have already been disregarded by the Federal Circuit. *See Consol. Edison*, 676 F.3d at 1339 (stating that “while [Commissioner] Merrifield’s comments explicitly suggest proposing legislation to amend the NWPA because of the government’s delay in accepting SNF, it does nothing to suggest that the 1999 rule change was the result of that delay or DOE’s breach”).

Furthermore, the study recognizes that using money from the Nuclear Waste Fund would “require[] legislative changes to the Nuclear Waste Policy Act (NWPA) which likely would be difficult to obtain in a timely manner.” *Id.* And

notes that, “[l]egislative relief may be hindered . . . by the prospect of reducing funds readily available for the DOE repository by diverting them to cover NRC needs.” *Id.* It is clear that the authors of the study, in making this recommendation, understood that diverting funds from the Nuclear Waste Fund was something that could not be done under the existing legal structure. The logical foundation of Mr. Funches’ opinion on this point, however, is the current legal structure, *i.e.*, the statutory requirement that the Nuclear Waste Fund can only be used “for purposes of radioactive waste disposal activities.” 42 U.S.C. § 10222(d). Therefore, because the study acknowledges the necessity of legislative change in order to effectuate its recommendation, it does not necessarily support Mr. Funches’ conclusion. Mr. Metcalfe’s opinion is flawed for the same reason.

To be clear, the court does not hold that plaintiffs cannot, as a matter of law, establish causation. But in this case, considering the Federal Circuit’s binding precedent, plaintiffs have failed to present sufficient evidence to support a finding that the government’s breach was a substantial causal factor in the NRC’s decision to increase fees.

CONCLUSION

Based on the foregoing analysis, the court awards the plaintiffs the following damages:

Georgia Power Company

Damages not specifically contested at trial (Hatch):	\$32,048,515
Damages not specifically contested at trial (Vogtle):	\$1,262,564
Plant Vogtle ISFSI engineering and design:	\$1,489,258
Plant Vogtle sally port:	\$486,595
Plant Hatch power supplies and HVAC system:	\$1,187,476

Total Recovery: \$36,474,408

Alabama Power Company

Damages not specifically contested at trial:	\$26,120,379
Plant Farley loading procedure development:	\$303,030
Plant Farley pit covers:	\$69,364

Total Recovery: \$26,492,773

The court has filed this opinion under seal in the event that information contained herein remains sensitive. The parties are directed to submit any proposed redactions within **fifteen days of the date of this opinion.**

The clerk is directed to enter final judgment in favor of Georgia Power in an amount of \$36,474,408, and final judgment in favor of Alabama Power in an amount of \$26,492,773.

SO ORDERED.

s/ James F. Merow
James F. Merow
Senior Judge